CHAPTER 5 LAND MANAGEMENT AREA RECOMMENDATIONS

5.1 LAND MANAGEMENT AREA RECOMMENDATIONS

The following sections provide key management actions developed through the preferred alternative of the Potholes Reservoir EIS. The sections are categorized by individual LMAs as identified within the Potholes Reservoir Management Area (see Figure 5.1-1).

Each of the recommendations relates to one or more of the six recreation goals for the RMP that are described in Section 4.2 (Resource Management Goals) but are specific to each LMA. Where data and information were insufficient to make specific recommendations in this RMP, the recommended actions may require further site specific study, evaluation, or monitoring. Because resource management is changing and dynamic, the monitoring program will become an integral and ongoing component of the RMP's recreation management plan. LMA maps precede each of the 16 individual management areas. Refer to Figures 4.1-1 and 4.1-2, "RMP Management Actions" to supplement each of the key management actions.

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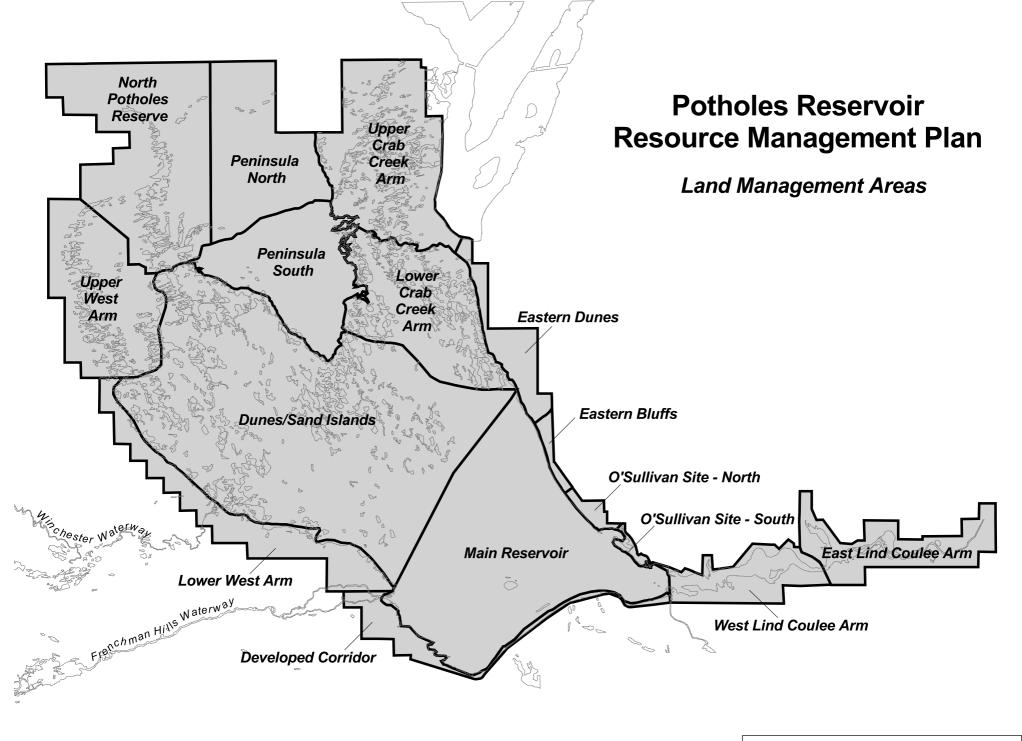
5.1.1 North Potholes Reserve

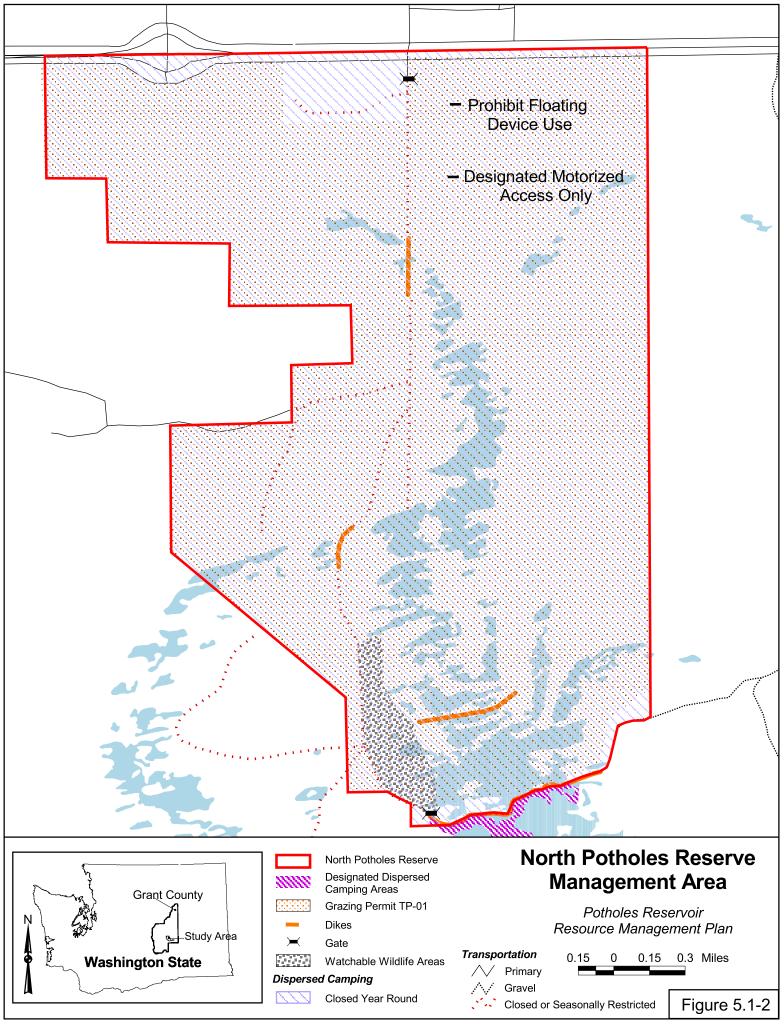
See Figure 5.1-2 "North Potholes Reserve Management Area."

The North Potholes Reserve management area consists of approximately 3,647 acres located near the northwest corner of the Potholes Reservoir Management Area. It is primarily good quality shrubland with components of excellent riparian forest lands and a rich diversity of wildlife habitats. One of the main habitat features of this management area is the willow forest which is utilized by large numbers of colony nesting birds. Bald eagles also use these tree willows as a winter roost. Shrub willow wetland areas provide nesting sites for many bird species including blackbirds, wrens, sparrows, and warblers, as well as providing forage and building materials for beavers and muskrats. Beavers dam the numerous channels in this area creating additional wetland areas used by waterfowl and other animals.

The shrub steppe habitat in this management area is in relatively good condition, although some areas have been impacted by overgrazing. Some areas are dominated by sagebrush and others by rabbitbrush. The North Potholes Reserve is established as an important wintering area for mule deer.







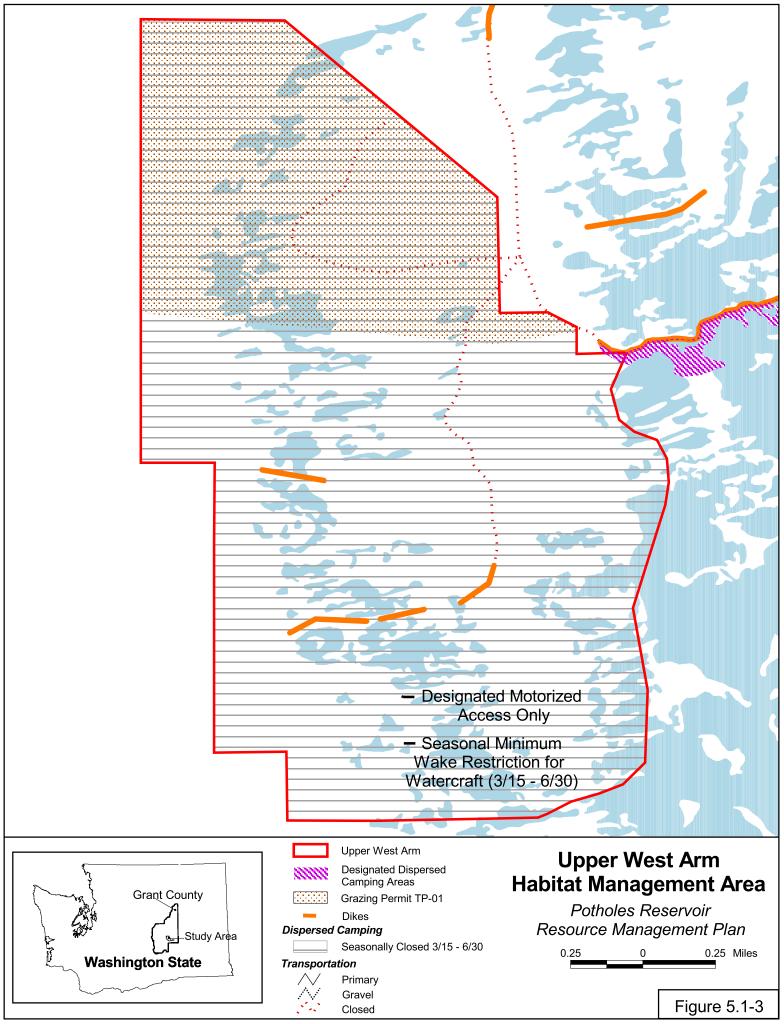
- Proposed "Watchable Wildlife" viewing opportunities including a half-mile walking loop from
 the North Outlet parking lot and the development of hiking trails and blinds in North Potholes
 Reserve would result in a small, undetermined amount of vacant land converted to non-invasive
 recreation use.
- Design and develop a system of hiking trails and blinds north of Job Corps Dike to view and
 interpret the area's colonial nesting bird rookery for great blue herons, black-crowned night
 herons, great egrets, and double-crested cormorants. This project would also provide
 excellent opportunities to view shorebirds, raptors, waterfowl, songbirds, terns, beaver and
 mule deer.
- Keep livestock forage utilization on the 6,700-acre pasture within the North Potholes Reserve management areas limited to no more than 600 AUMs from November 1 until March 15. Maintain grazing permit TP-01.
- Closed to dispersed camping except at designated sites along the Job Corps Dike. No improvements will be provided at these camping areas.
- Restrict floating device use.
- Seasonal restriction of any type of public access in south/central portion of North Potholes
 Reserve would be enforced from March 15 through May 30. The purpose of this seasonal
 restriction is to minimize human interaction and disturbance during waterfowl and colonial
 nesting bird reproductive periods.
- Maintain and enhance diking system.
- Provide managed access, turnouts, signs, and/or interpretive trails and displays to enhance "Watchable Wildlife" viewing opportunities.

5.1.2 Upper West Arm

See Figure 5.1-3 "Upper West Arm Management Area."

The Upper West Arm management area consists of approximately 2,320 acres located southwest of the North Potholes Reserve LMA. The Upper West Arm contains relatively high quality shrub steppe, wetland, and shoreline habitats. Bitterbrush draws in this area are heavily used by mule deer as a major summer and winter habitat. The area has excellent beaver and waterfowl habitat and is managed as a carpfree area. Other riparian and wetland areas are dominated by shrub willows and emergents like bulrush, smartweed, and spike-rush.





- Designate as an HMA. The designation and management of the Upper West Arm HMA would preclude future development including new roads within the area.
- Designate the Upper West Arm HMA as "seasonally open" for dispersed camping (closed March 15 through June 30) to enhance wildlife reproductive success. During the seasonal closure period, dispersed camping opportunities would be available at specific sites designated and signed as "open."
- Maintain and enhance diking system.
- Seasonally restrict motorized water craft to low-speed/minimum wake operation in the HMA from March 15 through June 30. This action is designed to enhance wildlife nesting and breeding success for grebes, waterfowl, and other shorebirds.
- Designate the Upper West Arm HMA as "seasonally open" for dispersed camping.
- Maintain grazing permit TP-01. Keep livestock forage utilization on the 700-acre pasture limited to no more than 600 AUMs from March 15 to April 15. This portion of grazing permit TP-01 is fenced and grazed as part of a two-pasture grazing rotation.

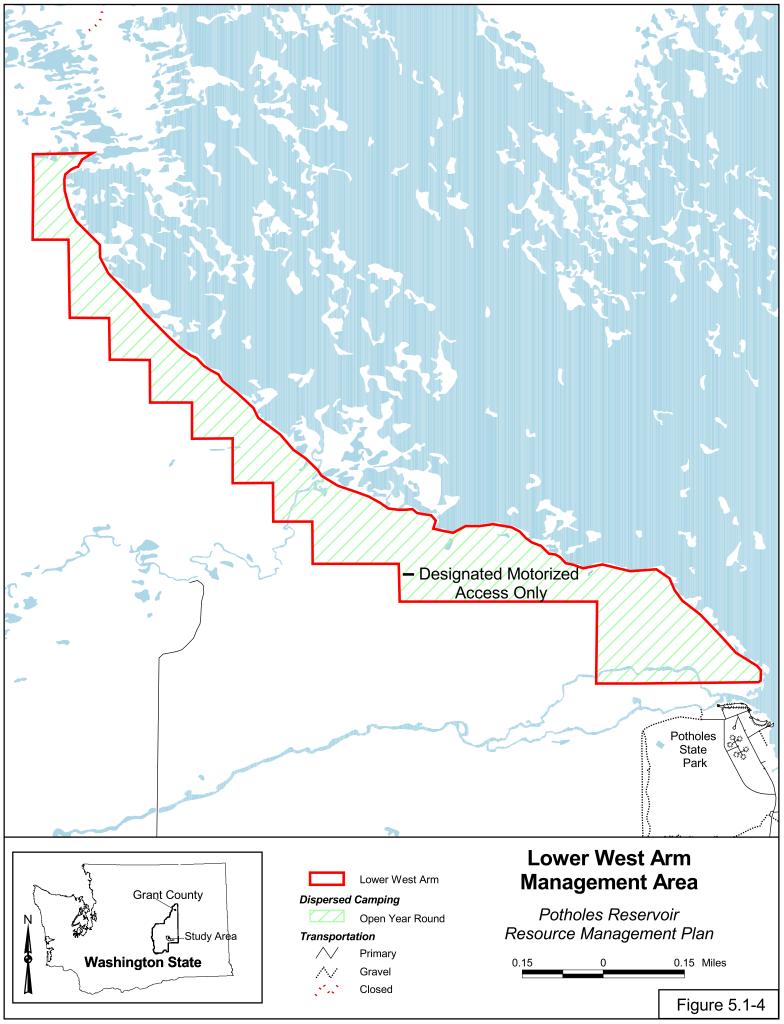
5.1.3 Lower West Arm

See Figure 5.1-4 "Lower West Arm Management Area."

The Lower West Arm management area consists of approximately 1,490 acres located just south and continuing eastward of the Upper West Arm LMA. Throughout much of the Lower West Arm, the wetlands and fluctuating reservoir shorelines provide abundant forage and cover for many animals and fish. As with the Upper West Arm LMA, the area has excellent beaver and waterfowl habitat and is managed as a carp-free area. Purple loosestrife appears to mostly be limited to the Winchester and Frenchman Hills wasteways near the southern end of the LMA. Shrub willows and emergents like bulrush, smartweed and spike-rush are present in some of the riparian and wetland areas.



- Open year-round to dispersed camping.
- Develop "Watchable Wildlife" trail adjacent to the shoreline.



5.1.4 Peninsula North

See Figure 5.1-5 "Peninsula North Management Area."

Peninsula North is located directly east of North Potholes Reserve and has approximately 2,200 acres of good to excellent shrublands and shrub grass. The Powerline Road and powerlines run through and along the perimeter of this LMA. The condition of the shrub steppe varies while the northern portion of the management unit contains wetlands dominated by spike-rush and saltgrass. These wetlands are used heavily by waterfowl and migrating shorebirds. This area also provides good beaver habitat.



- Peninsula North is open year-round to dispersed camping.
- Grazing permit TP-01 will be maintained within the unit.
- Develop as a "Watchable Wildlife" interpretive vehicle route along the Powerline Road in conjunction with USFW.
- Provide for the periodic dredging and removal of sediments deposited at the base of the Cartop Boat launch.

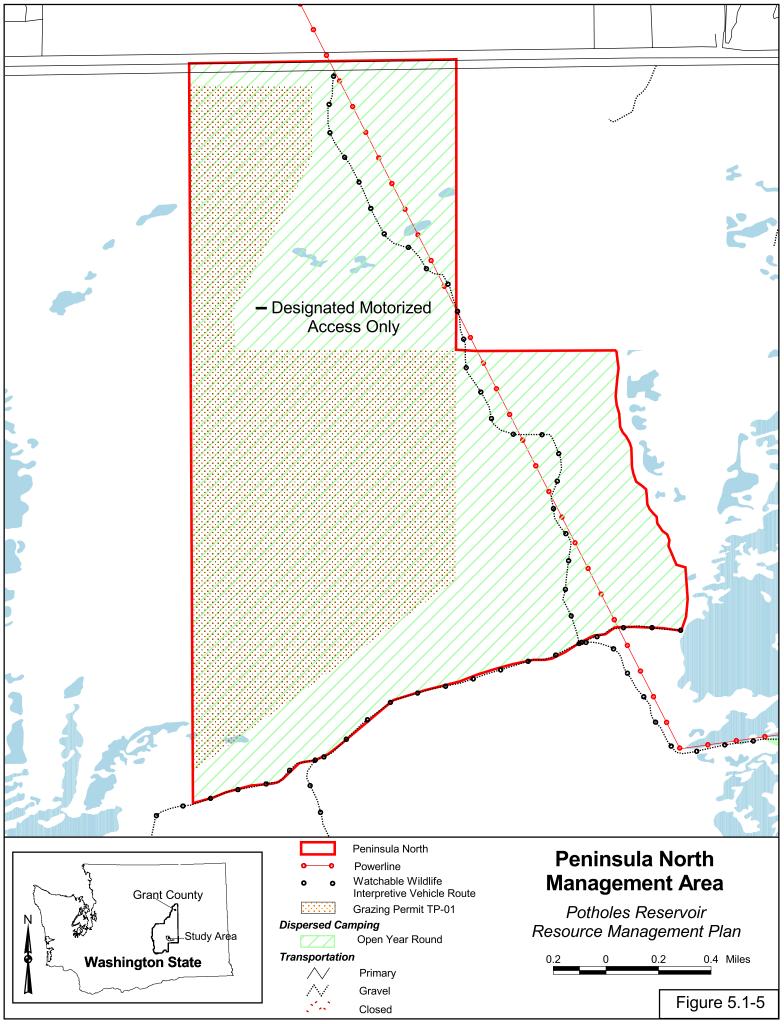
5.1.5 Peninsula South

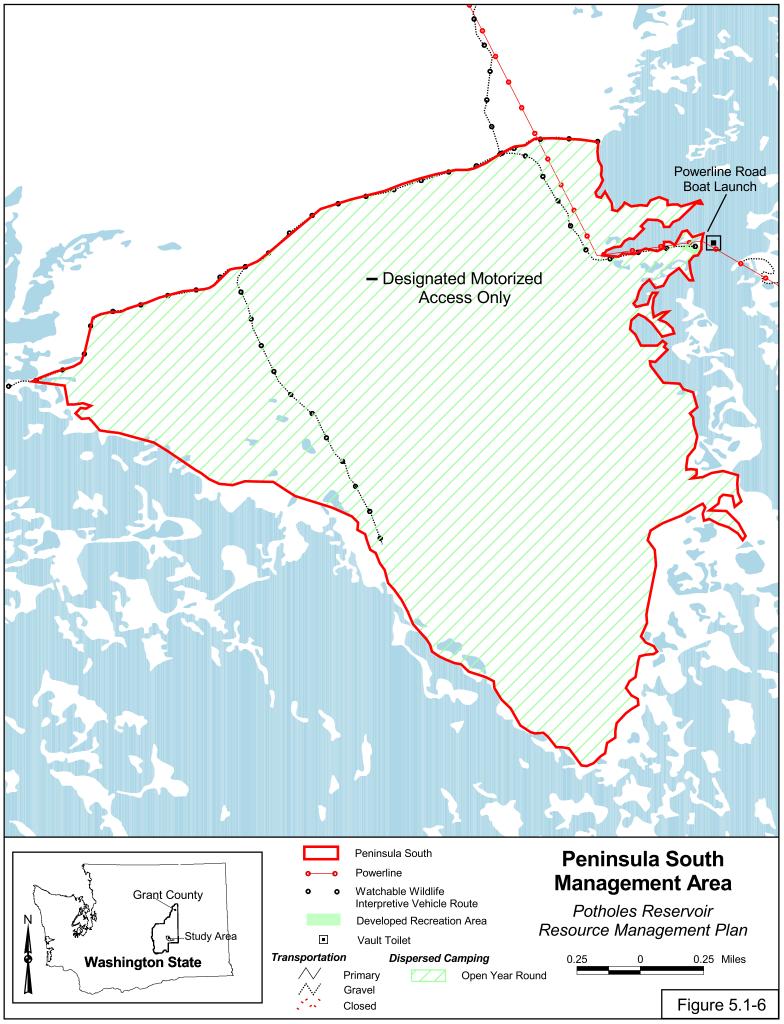
See Figure 5.1-6 "Peninsula South Management Area."

The Peninsula South management area consists of approximately 2,141 acres located directly south of the Peninsula North LMA. This area of sand dunes and shrub steppe is in relatively good condition and hosts a variety of wildlife including long-billed curlews, loggerhead shrikes, burrowing owls, reptiles, wintering raptors, and coyotes (WDFW, 1997).



- Open year-round to dispersed camping.
- Develop "Watchable Wildlife" interpretive vehicle route.
- Provide vault toilet at Powerline Boat Launch.
- Provide for the periodic dredging and removal of sediments deposited at the base of Powerline Boat Launch.
- Install "No Parking/No Camping" signs in immediate vicinity of the Powerline Boat Launch to improve vehicle and trailer maneuverability and traffic flows. (Currently, dispersed parking and/or camping in close proximity to the boat ramp hampers boat ramp operations.)





5.1.6 Upper Crab Creek Arm

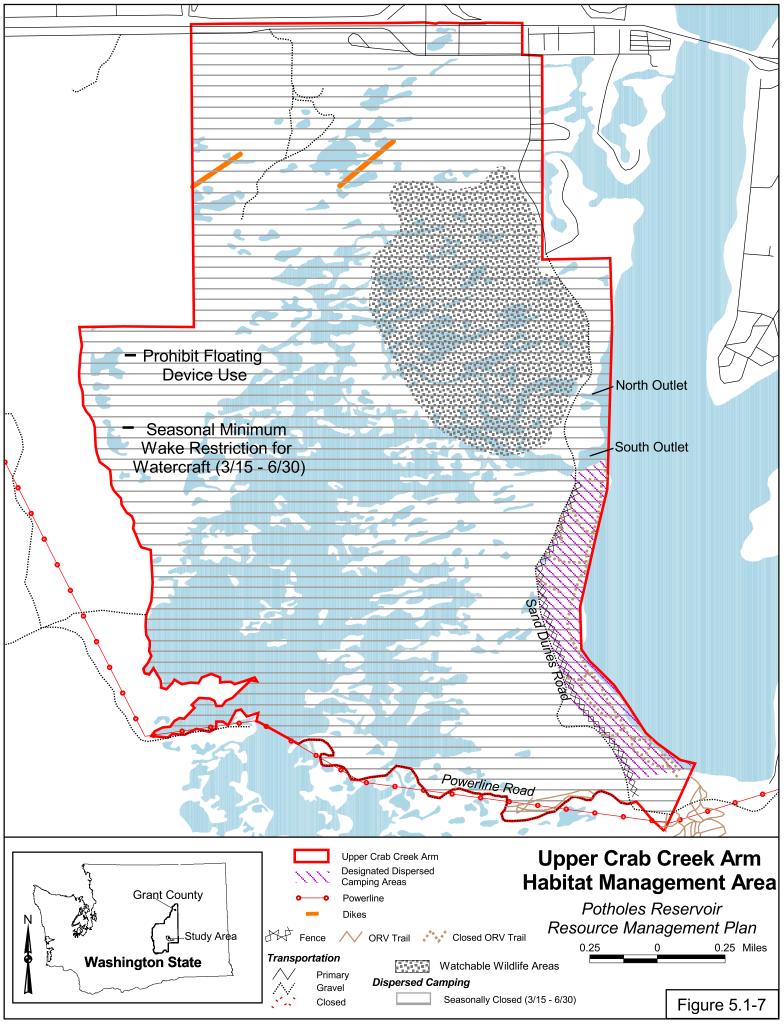
See Figure 5.1-7 "Upper Crab Creek Arm Management Area."

The Upper Crab Creek Arm management area consists of approximately 2,839 acres located directly east of the Peninsula North LMA. There are relatively high quality tree willow, shrub willow, bulrush and cattail emergent stands which provide habitat for many wildlife species, especially waterfowland beaver. Canada geese nest throughout this area and ducks nest mostly along the edges and to the north. Flocks of white pelicans are found here in late summer and fall. Beaver lodges are key habitat structures present which provide perch sites, feeding sites, and cover for many wildlife and fish species. The northen leopard frog is abundant as well. WDFW biologists speculate that movement out of the area by grebes, and great blue herons may occur due to human disturbances which are traditionally greater here than in some of the other LMAs with similar quality habitat.

The shrub-steppe habitat has been impacted by ORVs and grazing pressures, with rabbit brush and/or cheatgrass dominating in places. Russian knapweed is found at some sites, and Canada thistle (designated an invasive weed) is found in some moist areas near roads.



- Seasonally close to dispersed camping (March 15-June 30) except at designated sites to enhance wildlife reproductive success. During the seasonal closure period, dispersed camping opportunities would be available at specific sites designated and signed as "open."
- Close to ORV use.
- Provide West Lake/North Outlet "Watchable Wildlife" area.
- The designation and management of the Upper Crab Creek Arm as an HMA would preclude future development, including new roads, within the units.
- Maintain and enhance diking system.
- Fence east side of Sand Dunes Road between South Outlet and Powerline Road to prevent indiscriminate ORV entry. Provide parking turnouts and non-motorized access routes leading to west shore of Moses Lake.
- Designate and manage seven dispersed camping areas including North and South Outlets and five along the west shore of Moses Lake.
- Provide managed access, turnouts, signs, and/or interpretive trails and displays to enhance "Watchable Wildlife" viewing opportunities.
- Develop a half-mile loop trail beginning at the North Outlet parking lot. The trail would traverse through shrub-steppe, wetland, and riparian habitats. Wetland crossings would likely involve boardwalk construction.
- Designate and keep the eastern portion (about one mile) of Powerline Road "open seasonally" to motor vehicle travel/ORV use.
- Interpretive materials and signs would be used to describe habitat relationships for waterfowl, shorebirds, waders, songbirds and fur-bearers. The site would be convenient to Moses Lake residents and provide valuable recreation and education opportunities for tourists, local citizens, and school districts.
- Seasonally restrict motorized water craft to low-speed/minimum wake operation in the HMA from March 15 through June 30. This action is designed to enhance wildlife nesting and breeding success for grebes, waterfowl, and other shorebirds.



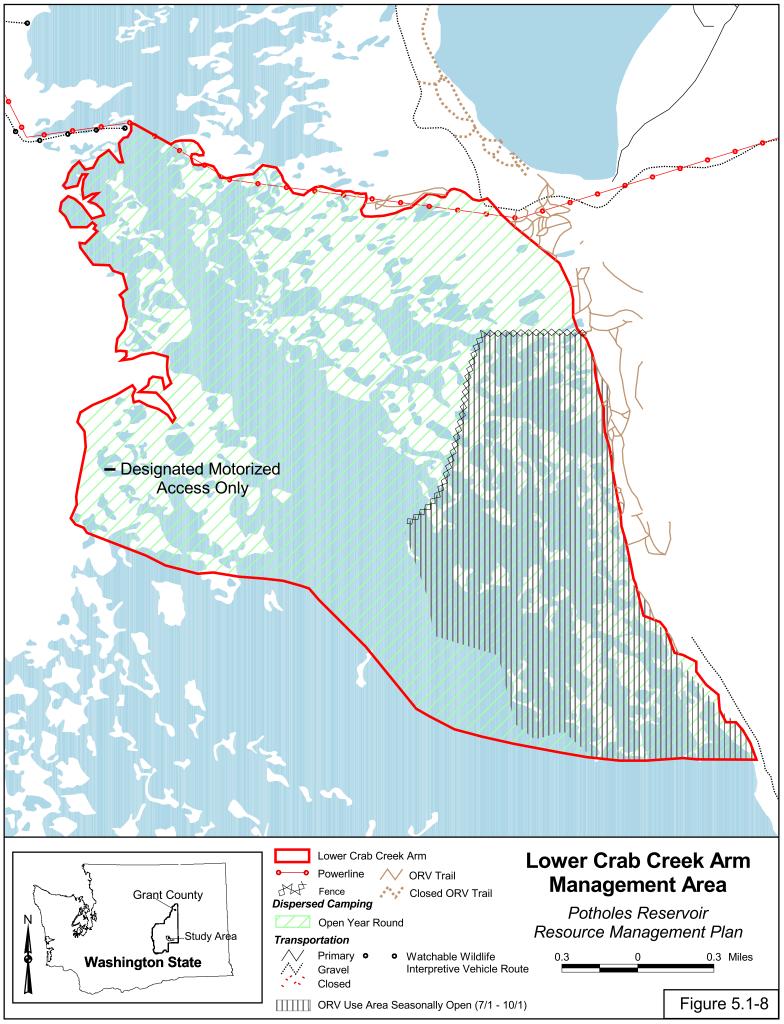
5.1.7 Lower Crab Creek Arm

See Figure 5.1-8 "Lower Crab Creek Arm Management Area."

The Lower Crab Creek Arm management area consists of approximately 2,442 acres located directly south of the Upper Crab Creek Arm LMA. As with the Upper Crab Creek Arm LMA, there are relatively high quality tree willow, shrub willow, bulrush and cattail emergent stands. Canada geese nest in the area; flocks of white pelicans are found in late summer and fall; beaver lodges provide key habitat structures; and bald eagles have been observed roosting on a sand dune island along the southern edge of the LMA. The northen leopard frog is abundant as well. Human activity in the LMA has led WDFW biologists to speculate that grebes and great blue have moved away from the area. The shrub-steppe habitat has been impacted by ORVs and grazing pressures, with rabbit brush and/or cheatgrass dominating in places. Russian knapweed is found at some sites, and Canada thistle is found in patches associated with moist areas near roads.



- Open year-round to dispersed camping.
- Close 919 acres to motor vehicle travel/ORV use. Rehabilitation efforts will be initiated in severely damaged areas.
- Keep eastern portion of Powerline Road seasonally open to motor vehicle travel/ORV use.
- The WDFW would locate and develop from one of the closed trails, an interpretive walkway to illustrate habitat restoration efforts in the LMA.
- The WDFW and Grant County land use agreement to manage the ORV area would be modified to include only the lands in the Eastern Dunes LMU and the south half of T18N, R28E, S10 (approximately 320 acres). The western portion of Powerline Road would be closed, and motorized vehicle and ORV use would be eliminated in some of the existing ORV areas (540 acres in the Lower Crab Creek Arm LMA).



5.1.8 Dunes/Sand Islands

See Figure 5.1-9 "Dunes/Sand Islands Management Area."

The Dunes/Sand Islands management area is the largest of the 16 LMAs identified at Potholes Reservoir and consists of approximately 9,811 acres (both land and water). The numerous sand dune islands and their vegetated shorelines provide forage, resting places, and cover for fish and for a variety of wildlife species. Most of the islands are sparsely vegetated with grasses, weedy, annual herbs, and some shrubs. The habitat on some islands is heavily impacted by campers and boaters. Gulls and terns use some of these islands for nesting. Migrating waterfowl concentrate here, and Canada geese nest on the islands. Warm water fish habitat is present here and bald eagles perch on these islands to forage during winter.



Key Management Actions

• Open year-round to dispersed camping. (Note: At the discretion of the WDFW, specific islands may be seasonally closed with signs to minimize human disturbance to nesting birds, wildlife, and/or improve vegetative restoration efforts).

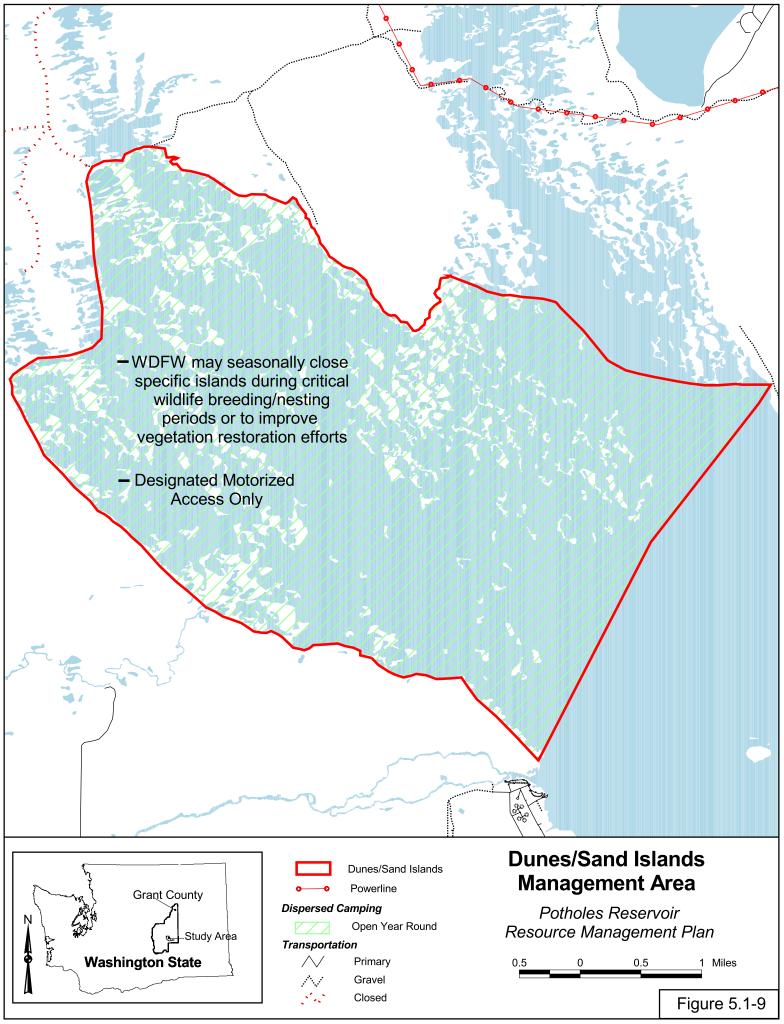
5.1.9 Eastern Bluffs

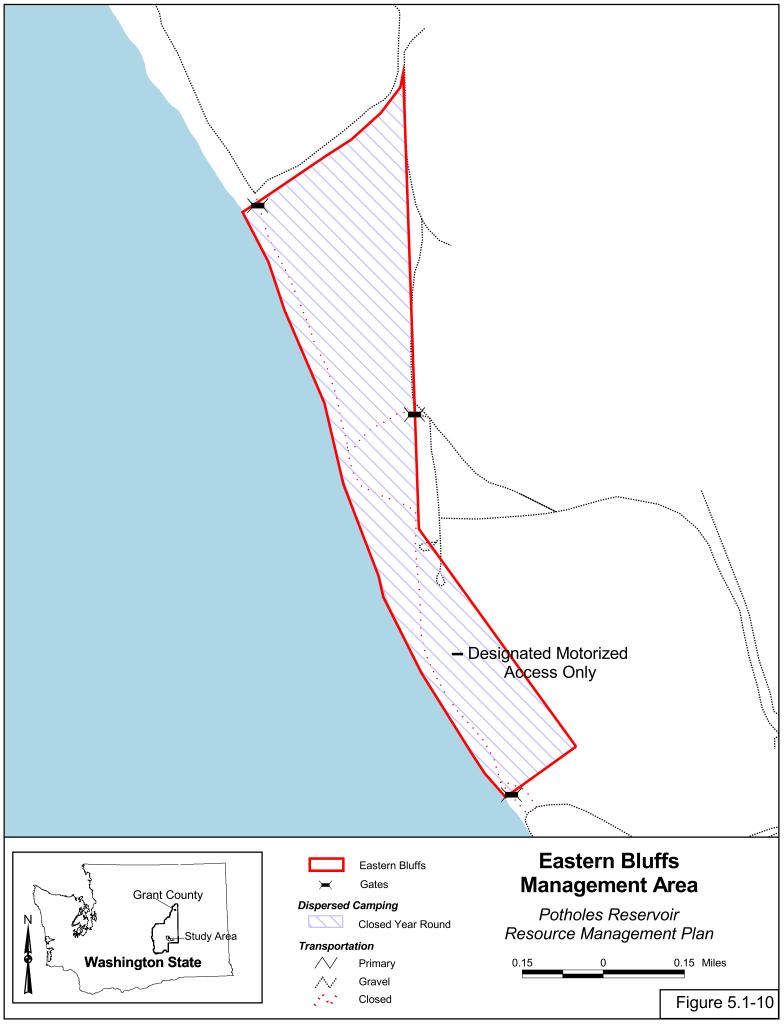
See Figure 5.1-10 "Eastern Bluffs Management Area."

The Eastern Bluffs management area consists of approximately 128 acres located along the northeastern shoreline of Potholes Reservoir. This shrub steppe also has limited wildlife habitat value and is sparsely vegetated, with the dominating plants being rabbitbrush and cheatgrass. Numerous trails from vehicles dissect the area.



- Close to dispersed camping.
- Close to motor vehicle travel/ORV use.
- Install road gates to prevent motor vehicle entry.
- Post management regulations at "D.5 SE Road" entrance.





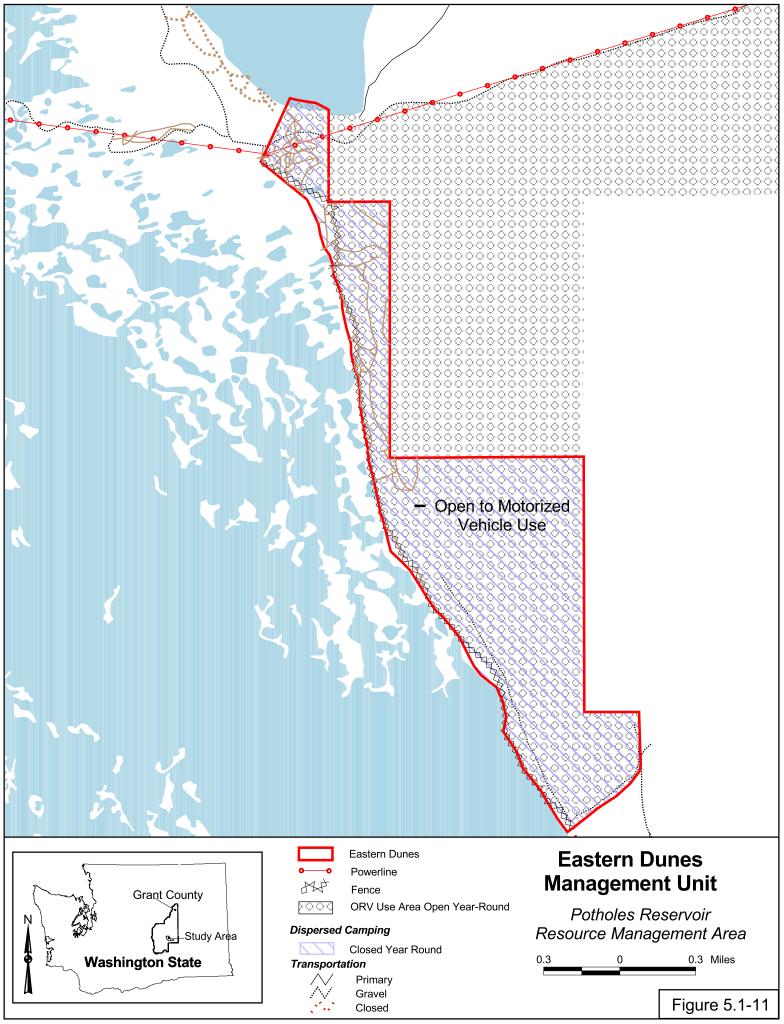
5.1.10 Eastern Dunes

See Figure 5.1-11 "Eastern Dunes Management Area."

The Eastern Dunes management area consists of approximately 660 acres located south of Sand Dune Road along the northeast boundary of Potholes Reservoir. The LMA represents the majority of permissible ORV use where shrub steppe is heavily impacted by human activity. In year-round ORV use areas, vegetation is very sparse, providing very limited wildlife habitat. Where shrubs are found in the sand dunes, gray and green rabbitbrush are dominant shrub rather than sagebrush. Cheatgrass and needle and thread are the dominant grasses. The wetlands are dominated by cattails where birds, such as red-winged blackbirds, nest. Wetlands that are heavily used by ORVs are lacking vegetation at their perimeters.



- Close to dispersed camping.
- Open to motor vehicle travel/ORV use year-round.
- Fence west boundary to control indiscriminate ORV entry into Lower Crab Creek Arm.
- The WDFW and Grant County land use agreement to manage the ORV area would be modified
 to include only the lands in the Eastern Dunes management area and the south half of T18N, R28E,
 S10 (approximately 320 acres). The western portion of Powerline Road would be closed and
 motorized vehicle and ORV use would be eliminated in some of the existing ORV areas (540 acres
 in the Lower Crab Creek Arm LMA).



5.1.11 O'Sullivan Site

Until O'Sullivan Site - North is formally developed by the SPRC as a unit of Potholes State Park, the O'Sullivan Beach and Perch Point area would be managed for day use recreation only (i.e., fishing, hiking, picnicking, wildlife observation, etc.). A fenced parking area with walk-in access portals would be provided off Perch Point Road, and human sanitation needs would be met via portable toilets on a seasonal basis. Trash would be managed under a "pack-in/pack-out" policy or with centrally located trash receptacles at the discretion of the SPRC. During this interim period, dispersed camping opportunities would remain available in the southern portions of O'Sullivan Site.

The habitat value of this site is similar to that of the Eastern Dunes and Corridor as it has similar terrain and is heavily used by recreationists. A rocky bay at the site provides some protected waterfowl habitat used by diving ducks and fish-eating birds. The bay is also an important spawning area for smallmouth bass. Human disturbance in this area may limit predation success of fish-eating birds.

O'Sullivan Site - North

See Figure 5.1-12 "O'Sullivan Site - North Management Area."

The O'Sullivan Site - North management area consists of approximately 129 acres located along the eastern boundary of Potholes Reservoir. The LMA provides open beach with good panoramic view to the reservoir.

Expanding the Potholes State Park to formally include this area would relieve much of the pressure imposed upon the other existing recreation access points (see Figure 5.1-13 "Concept Plan for O'Sullivan Site North"). The development of facilities at the original O'Sullivan Site (also referred to as Medicare Beach and Perch Point) will provide better service to users and better access to recreation opportunities.



- Close to dispersed camping.
- Develop as unit of Potholes State Park. Until developed:
 - **S** provide seasonal toilets;
 - **S** fence parking area; and
 - **S** designate as day use only.
- Phased SPRC facilities and amenities for the O'Sullivan Site-North include:
 - a two- to four-lane concrete boat ramp with courtesy docks. The feasibility of developing seasonal (mid-May and mid-September) disabled fishing access in areas near courtesy docks would be evaluated.
 - 100 spaces for vehicles and trailer parking;
 - restroom facilities;



- buoys for boat moorage;
- boater safety signage;
- fish cleaning station;
- day use beach, and swimming area;
- campground (50-100 campsites, approximately 50% to include RV utility hookups);
- group campground;
- day use picnic area (includes parking and restroom facility);
- non-motorized trail system including ADA accessible fishing turnouts;
- access road upgrades an upgrade to Road 5 SE off of Road "M" SE would be required to accommodate increased traffic to the area and to safely provide access to this heavily used site. (It should be noted that in its present state, this area is already heavily impacted with peak holiday traffic and camping/day use cause overcrowding conflict.)
- centralized trash receptacles and collection;
- sewage treatment lagoons;
- entrance station;
- park residence and maintenance shop;
- provide for the periodic dredging and removal of sediments deposited at the base of public boat launches; and
- convert vacant land currently used for dispersed, waterfront recreation activities, to a developed recreation area managed by the SPRC.

O'Sullivan Site - South

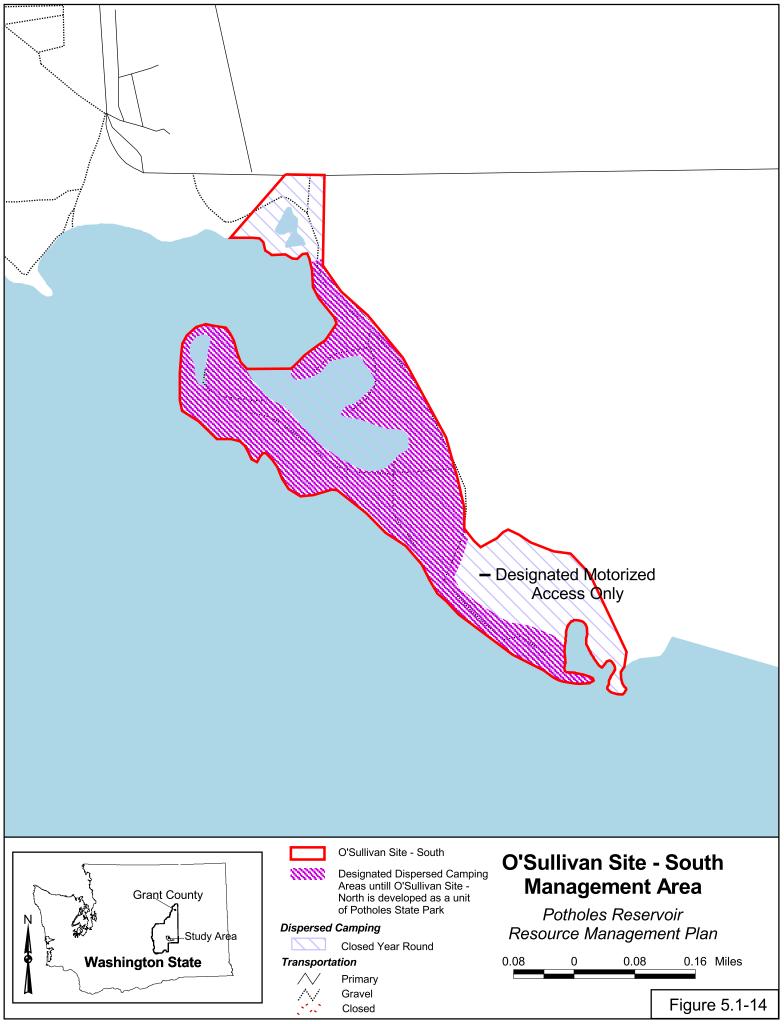
See Figure 5.1-14 "O'Sullivan Site -South Management Area."

The O'Sullivan Site - South management area consists of approximately 76 acres located along the eastern boundary of Potholes Reservoir and extends directly south from the O'Sullivan Site -North LMA (described in the previous subsection).



Key Management Actions

• Designate and manage as dispersed camping area until O'Sullivan Site - North is developed as unit of Potholes State Park.



5.1.12 East Lind Coulee Arm

See Figure 5.1-15 "East Lind Coulee Arm Management Area."

The East Lind Coulee Arm management area consists of approximately 1,255 acres located along the north and south shores of the Potholes Reservoir eastern extent. The shrub steppe and shoreline habitats here are similar to those found in the West Lind Coulee Arm LMA. However, this section of the Lind Coulee Arm has a higher concentration of waterfowl in fall, winter, and spring and more shorebirds in the late summer and fall. Mink are also very abundant in this area. Reed canary dominates some emergent wetlands along this stretch.`



- Close to dispersed camping except at designated sites.
- Develop the northern area of the East Lind Coulee Arm as a "Watchable Wildlife" area.
- Continue the 1.5-mile seasonal road closure from October 1- January 1.
- Improvements to existing boat launch with courtesy docks added. (The present boat launch near Road "M" SE becomes inoperable during late season low reservoir levels).
- Evaluate the feasibility of developing disabled fishing access in areas near courtesy docks (for use between mid-May and mid-September).

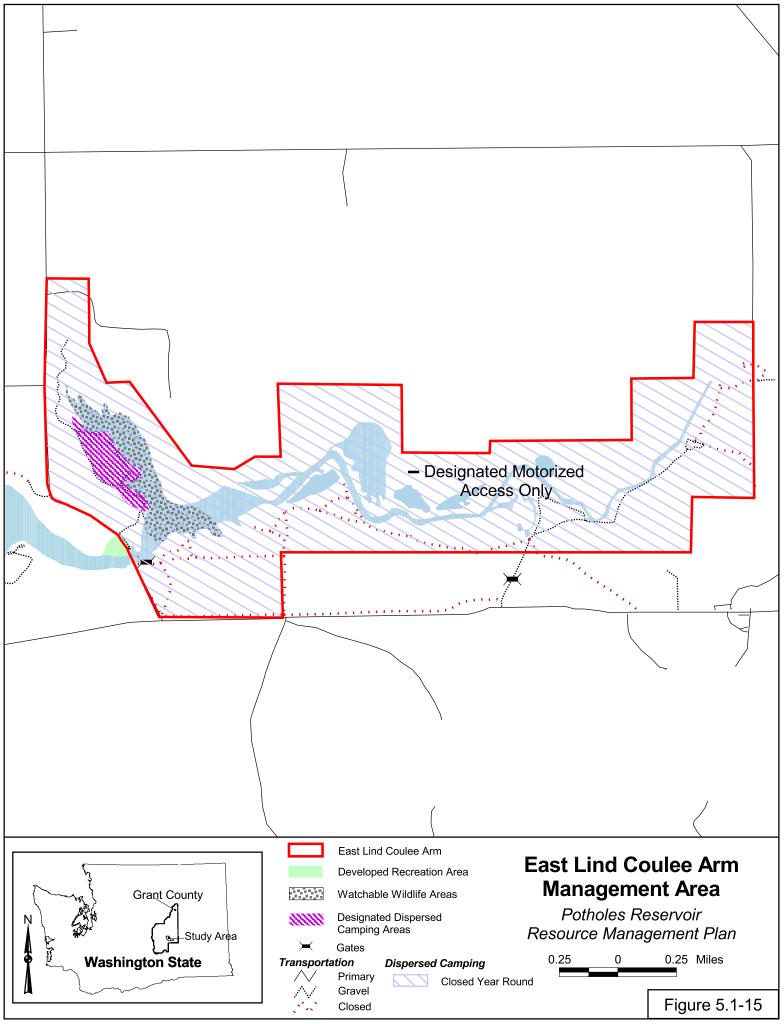
5.1.13 West Lind Coulee Arm

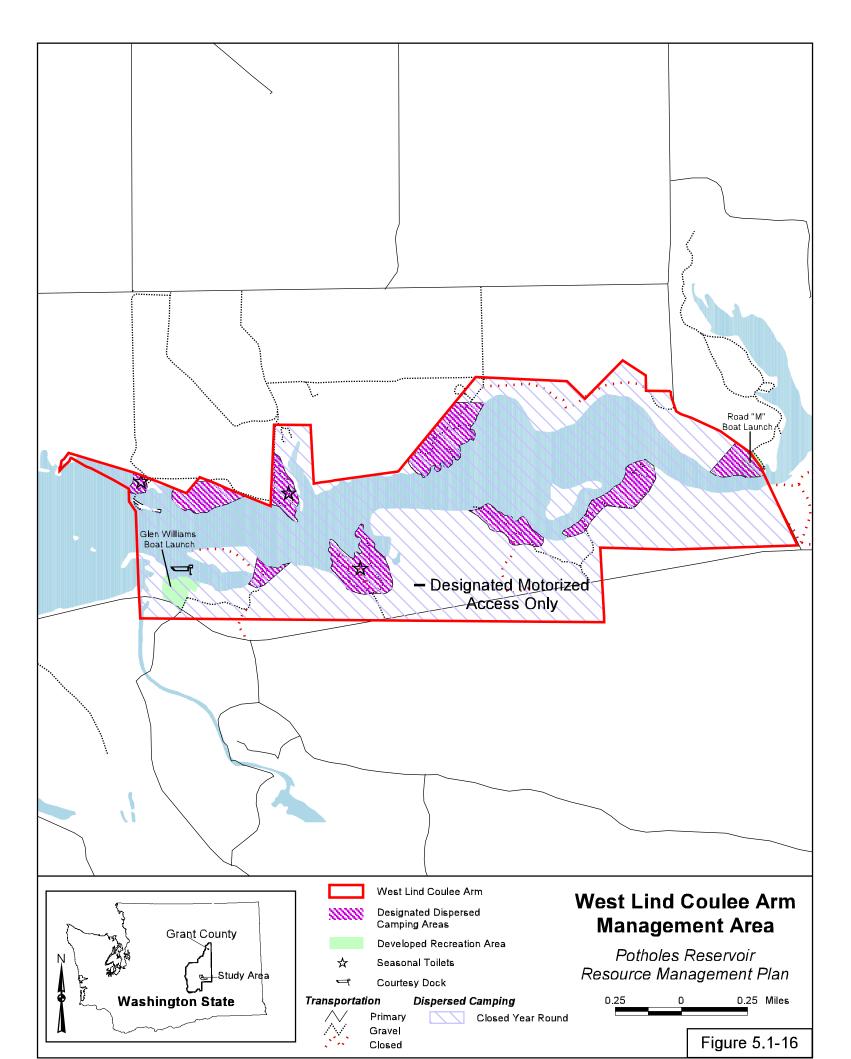
See Figure 5.1-16 "West Lind Coulee Arm Management Area."

The West Lind Coulee Arm management area consists of approximately 986 acres connecting East Lind Coulee Arm LMA to the main reservoir. The shrub steppe habitat closest to Lind Coulee is relatively good quality, with bunchgrasses, sagebrush, spiny hopsage, and bitterbrush dominating. However, further away from the coulee, the habitat is dominated by cheatgrass. Much of the shoreline is lined by shrub willows, which provide cover and foraging areas for fish and beaver habitat. Some small cliffs are present along the shores with potential habitat for snakes and raptors. The silt loam substrate found here provides burrowing opportunities for Washington ground squirrels and possibly marmots.



- Close to dispersed camping except at designated sites.
- Designate and manage seven dispersed camping areas.
- Provide seasonal toilets in high-use areas.
- Allow camping at Glen Williams and Road "M" Boat Launch sites.
- Provide courtesy docks at Glen Williams Boat Launch.
- Provide for the periodic dredging and removal of sediments deposited at the base of public boat launches, Glen Williams Boat Launch, West Lind Coulee Boat Launch, and Road "M" Boat Launch.



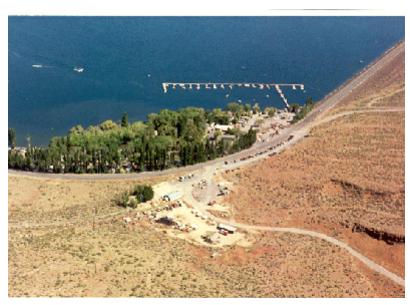


5.1.14 Developed Corridor

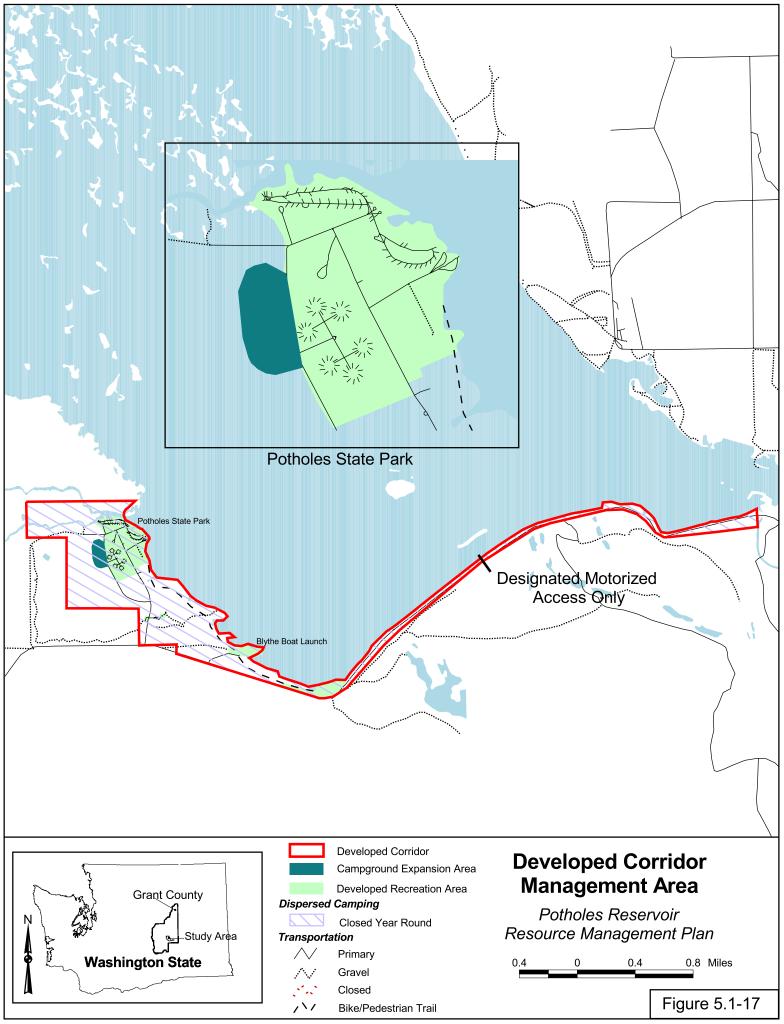
See Figure 5.1-17 "Developed Corridor Management Area."

The Developed Corridor management area consists of approximately 629 acres located along the southwest corner of the Potholes Reservoir. The LMA is largely comprised of the Potholes State Park. The habitat value at developed sites is relatively low, with invasive weeds dominating some access sites. However, the shoreline in this corridor is dominated by shrub willows and the habitat potential of these areas is high. Russian olive thickets are in some of the moister low areas of Potholes State Park and the Blythe Boat Launch Site. These thickets provide habitat and winter food for pheasants, perches, food, and nesting sites for birds such as magpies and ravens, and cover for deer.





- Close to dispersed camping except at designated sites.
- Develop an asphalt-surfaced bike/pedestrian trail between Potholes State Park and O'Sullivan Dam.
- Allow camping at Blythe Boat Launch.
- Surface or improve the cartop boat launch at Blythe and assess the feasibility of reconstruction to improve low water access.
- Provide for the periodic dredging and removal of sediments deposited at the base of public boat launches and Blythe Boat Launch.
- Pursue the cooperative development of an "Environmental Education Center" within or near the Developed Corridor.
- Develop a trailhead at O'Sullivan Dam to provide a multi-use trail connecting Potholes
 State Park to the O'Sullivan sites. Interpretive signs would be posted along the trail
 describing some of the natural attractions and history of the reservoir and surrounding area.
 Visitor trails would be developed at Potholes State Park, and along O'Sullivan Beach to
 connect high-use areas to the reservoir (water level).
- Develop additional facilities south of Potholes State Park to provide better service to users
 and better access to recreation opportunities. To compensate for prohibiting overnight
 camping in portions of the Developed Corridor (i.e., Blythe Boat Launch and O'Sullivan
 Site Areas), Potholes State Park would be expanded west of its current location with
 additional camping areas and facilities to be developed.
- A two- to four-lane boat ramp and courtesy docks would be installed near Potholes State
 Park and would be supported by adequate parking, restroom facilities, garbage collection,
 boater safety signage, and designated trail access to the reservoir.
- A swimming beach would be developed outside the boat launch area near the Potholes State Park. The feasibility of developing disabled fishing access in areas near courtesy docks would be evaluated (for use between mid-May and mid-September).



5.1.15 Main Reservoir

See Figure 5.1-18 "Main Reservoir Management Area."

The Main Reservoir management area consists of approximately 5,435 acres and represents the deepest, open water portion of Potholes Reservoir. Consequently, the main reservoir is made up mostly of open water habitat with only a few islands and the main reservoir shoreline areas. The area provides shallow and deep water habitats for fish and is an important place for the warm-water fishery. Water smartweed and pondweeds are important forage plants for waterfowl and muskrats. Bald eagles and common loons utilize this LMA for winter foraging. Waterfowl concentrations are found here during migration periods.



Key Management Actions

No special management is recommended for this LMA.

